

Living Well, Missing Out Less? Exploring the Associations between Well-Being, Fear of Missing Out, and Problematic Digital Use

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Abstract

Digital technologies offer opportunities for connection and growth but are also associated with problematic patterns of use. This study examined how three dimensions of well-being, hedonic well-being, eudaimonic well-being, and psychological richness, relate to fear of missing out (FoMO) and problematic digital use, and whether self-control moderates these associations. Using a cross-sectional survey of 494 U.S. adults and structural equation modeling, we tested an integrative model linking well-being orientations to problematic social media use and problematic smartphone use through FoMO, while also examining self-control as a potential regulatory factor. Results indicated that eudaimonic well-being was positively associated with FoMO, which in turn related to higher problematic social media and smartphone use. FoMO showed strong positive associations with both problematic social media and problematic smartphone use and statistically mediated the associations between eudaimonic well-being and both outcomes. Psychological richness was directly associated with higher levels of problematic digital use independent of FoMO, suggesting a pathway tied to novelty seeking and experiential variety rather than social-comparison concern. Self-control was negatively associated with problematic digital use, but it did not moderate FoMO-problematic use associations. These findings refine assumptions that well-being is uniformly protective in digital contexts and suggest that distinct orientations toward the good life may relate to digital vulnerability through different motivational processes. Implications for theory and future intervention research are discussed.

Keywords

Fear of Missing Out (FoMO), Well-Being, Psychological Richness,

1. Introduction

Digital technologies have become deeply woven into daily life, offering unprecedented opportunities for social connection, information access, and personal growth. However, these same technologies increasingly contribute to patterns of excessive and compulsive use that undermine well-being. A growing body of research highlights problematic digital use, including maladaptive engagement with social media and smartphones, as a behavioral manifestation of unmet psychological needs, emotional dysregulation, and difficulties in self-control (Elhai et al., 2020; Montag et al., 2021; Yang et al., 2025). As digital platforms become indispensable spaces for social interaction and identity expression, understanding the psychological mechanisms that lead individuals toward problematic use has become a persistent scholarly and public health concern.

One construct that has emerged as particularly relevant in this context is the Fear of Missing Out (FoMO), defined as the uneasy feeling that others are enjoying meaningful or rewarding experiences that one is not part of (Przybylski et al., 2013). FoMO has been consistently linked to increased social monitoring, heightened sensitivity to social comparison, and greater engagement with digital platforms (Elhai et al., 2020; Wolniewicz et al., 2020). Research continues to support FoMO's strong association with problematic digital behaviors (Servidio et al., 2024). From an evolutionary and positive psychology perspective, the motivational potency of FoMO reflects humans' deeply rooted reliance on social monitoring to maintain belonging, access resources, and enhance reproductive success (Baumeister & Leary, 1995; Kenrick et al., 2010). Consequently, humans developed a highly sensitive social monitoring system designed to detect exclusion, identify opportunities for affiliation, and track the activities of valued others. In modern digital environments, where social information is abundant, instantaneous, and algorithmically amplified, this ancient system is frequently overstimulated (Beyens et al., 2024). FoMO, in this sense, represents a modern expression of an evolutionarily adaptive alarm that has become increasingly activated by contemporary technology.

Although a robust body of research documents FoMO's role as a proximal driver of digital overuse, far less is known about its psychological correlates, particularly those grounded in subjective well-being. To address this gap, the present study examines how different facets of the "good life", including hedonic well-being, eudaimonic well-being, and psychological richness, are associated with individuals' levels of FoMO and, in turn, their patterns of digital use. Research on subjective well-being has traditionally emphasized hedonic (pleasure-based) and eudaimonic (meaning- and growth-based) dimensions (Ryan & Deci, 2001). Recently, scholars have proposed a third dimension: psychological richness, characterized by novel, varied, and perspective-changing experiences (Oishi & Westgate,

2022). Importantly, these well-being pathways align with distinct evolutionarily adaptive functions: hedonic well-being promotes emotional safety; eudaimonic well-being supports long-term contribution, reputation building, and enhanced social value; and psychological richness facilitates exploration and adaptive learning in complex or changing environments (Kenrick et al., 2010; Oishi & Westgate, 2022). Together, these constructs offer a multidimensional framework for understanding how individuals pursue connection, growth, and stimulation, and how these needs may be differentially related to vulnerability to FoMO in contemporary digital contexts.

There are theoretical reasons to expect nuanced, and in some cases counterintuitive, associations between well-being and FoMO. Hedonic well-being, by fostering emotional security and satisfaction, may be associated with lower sensitivity to the social monitoring processes underlying FoMO (Diener et al., 1999; Ryan & Deci, 2001). In contrast, eudaimonic well-being, defined as a sense of meaning and purpose, may be associated with greater attentiveness to opportunities for connection and self-expansion, potentially increasing awareness of missed experiences (Bauer et al., 2005; Ryff & Singer, 2008). Psychological richness, characterized by a preference for novelty and varied experiences, may similarly be linked to heightened sensitivity to stimulating opportunities frequently presented in digital environments (Oishi & Westgate, 2022). Together, these perspectives suggest that well-being may not uniformly protect against FoMO and may, under certain motivational conditions, be associated with increased vulnerability.

Beyond identifying correlates of FoMO, scholars have also emphasized the role of self-control as a regulatory factor shaping technology use. Self-control reflects the capacity to inhibit impulses, manage affective responses, and align behavior with long-term goals (Tangney et al., 2004). Higher levels of self-control are consistently associated with lower susceptibility to compulsive or addictive behaviors, including problematic digital use (Servidio, 2021; Wolniewicz et al., 2020). However, less is known about whether self-control moderates the association between FoMO and problematic digital use. Clarifying the function of self-control is therefore essential for understanding when FoMO translates into maladaptive digital behavior and when individuals are able to regulate or resist its pull.

The present study builds on this work by examining how three dimensions of well-being, namely hedonic well-being, eudaimonic well-being (operationalized as presence of meaning), and psychological richness, are associated with FoMO and two forms of problematic digital use: problematic social media use and problematic smartphone use. By considering these dimensions simultaneously, this study aims to move beyond general assumptions that well-being is uniformly protective and instead identify distinct patterns of association across different orientations toward the good life. In addition, the study examines self-control as a dispositional factor associated with lower levels of problematic use and explores whether it is related to variation in the association between FoMO and digital behaviors.

By integrating multiple dimensions of well-being within a single framework, this study contributes to a more nuanced understanding of digital well-being. Specifically, it examines whether different pathways to a good life are differentially associated with FoMO and problematic digital engagement, thereby refining theoretical assumptions about when well-being may be protective and when it may be linked to increased vulnerability in digitally saturated environments.

2. Literature Review

2.1. Digital Media Use and the Evolution of Human Social Needs

Humans are inherently social beings whose psychological systems evolved to support two fundamental imperatives: survival and mating (Buss, 2019; Kenrick et al., 2010). Across evolutionary history, these imperatives required strong social bonds, access to cooperative partners, and sensitivity to group dynamics (Baumeister & Leary, 1995; Neuberg et al., 2010). These pressures fostered a finely attuned social monitoring system designed to detect acceptance, exclusion, and opportunities for affiliation, capacities that continue to guide social cognition in modern contexts (Pickett & Gardner, 2005).

In today's digital environments, however, social information is ubiquitous, instantaneous, and amplified by algorithmic curation. Social media platforms offer continuous visibility into others' activities, achievements, and interactions (Beyens et al., 2024; Ellison et al., 2020). This abundance of social cues presents a mismatch between ancient psychological mechanisms and modern technological affordances, increasing vulnerability to maladaptive patterns of digital use. Problematic digital use, including excessive social media and smartphone involvement, is associated with heightened social vigilance, emotion dysregulation, and unmet psychological needs (Elhai et al., 2020; Montag et al., 2021). These dynamics provide the foundation for understanding why individuals may be especially susceptible to the Fear of Missing Out (FoMO).

2.2. Fear of Missing Out: Conceptual Foundations and Role in Digital Behavior

The Fear of Missing Out (FoMO) is defined as the persistent apprehension that others are having rewarding experiences from which one is absent (Przybylski et al., 2013). This concern is commonly associated with social comparison processes and unmet relatedness needs that motivate increased monitoring of others' activities (Elhai et al., 2020; Przybylski et al., 2013; Wolniewicz et al., 2020). From an evolutionary perspective, FoMO represents a modern expression of ancestral social monitoring capacities that historically supported belonging, coalition tracking, and access to socially relevant opportunities essential for survival and reproductive success (Baumeister & Leary, 1995; Buss, 2019; Pickett & Gardner, 2005). Missing important social events or cues of exclusion would have carried significant costs in ancestral environments, which made vigilance toward others' activities adaptive. Digital platforms intensify this vigilance by offering curated and

continuous visibility into social interactions and milestones (Valkenburg et al., 2022).

Empirically, FoMO is associated with a range of adverse psychological and behavioral outcomes. Higher FoMO predicts problematic smartphone use (Elhai et al., 2020), excessive social media engagement (Baker et al., 2016), emotional distress and dysregulation (Rozgonjuk et al., 2021), and sleep and attentional disruptions (Wolniewicz et al., 2018). These patterns reflect the persistent pull of digital platforms that deliver abundant, immediate, and socially salient information, often activating and overwhelming evolved social monitoring mechanisms (Valkenburg et al., 2022, 2024).

Scholars increasingly conceptualize FoMO as a proximal motivational driver of digital behavior that compels individuals toward repeated checking, reassurance-seeking, and sustained engagement (Elhai et al., 2020; Wolniewicz et al., 2020). Understanding why some individuals experience FoMO more intensely than others requires examining upstream orientations toward well-being, including hedonic well-being, eudaimonic well-being, and psychological richness. These constructs represent complementary pathways to the “good life”, and they shape sensitivity to social and experiential opportunities.

2.3. The Good Life Framework: Hedonic, Eudaimonic, and Psychological Richness

Positive psychology proposes multiple pathways to a well-lived life and highlights distinct forms of well-being through which individuals achieve fulfillment (Seligman, 2011). Hedonic well-being, eudaimonic well-being, and psychological richness represent three theoretically unique routes by which people satisfy psychological and evolutionary needs.

Hedonic well-being captures pleasure, positive affect, and life satisfaction (Diener et al., 1999). Evolutionarily, hedonic states signal safety, resource sufficiency, and successful need fulfillment (Buss, 2019). Individuals with higher hedonic well-being exhibit reduced emotional distress and lower sensitivity to social threat cues, conditions that may buffer against the relational need frustrations and comparison processes that fuel FoMO.

Eudaimonic well-being reflects meaning, purpose, self-realization, and personal growth (Ryan & Deci, 2001; Ryff & Singer, 2008). From an evolutionary lens, eudaimonic orientations may support group value, social reputation, competence, and long-term goal pursuit (Kenrick et al., 2010). However, individuals who are motivated by meaning and personal growth may also be more attuned to missed opportunities for connection, contribution, or self-expansion. This perspective suggests that eudaimonic well-being may be a complex predictor of FoMO.

Psychological richness involves a preference for variety, novelty, and experiences that shift perspectives (Oishi & Westgate, 2022). Although newly formalized as a well-being dimension, it draws on evolutionary functions of exploration and curiosity that promote adaptability, information acquisition, and broader social networks (Griskevicius & Kenrick, 2013). In digital environments that provide

abundant novel social and informational cues, individuals who score high in psychological richness may be especially sensitive to potential experiences they are not currently accessing. This sensitivity may elevate FoMO or directly increase engagement with digital platforms.

These constructs provide a multidimensional framework for understanding how individuals pursue well-being and how these pursuits may differentially shape susceptibility to FoMO.

2.4. FoMO as a Mediator Linking Well-Being to Digital Behavior

FoMO may operate as an intermediary process through which well-being orientations are associated with digital behavior. Individuals with lower hedonic well-being may experience FoMO due to heightened need frustration, negative affectivity, or increased social comparison tendencies (Diener et al., 1999; Ryan & Deci, 2001). In contrast, individuals with higher eudaimonic well-being or psychological richness may experience FoMO because they are more aware of opportunities for growth, novelty, or meaningful engagement (Oishi & Westgate, 2022; Ryff & Singer, 2008).

Empirical research indicates that well-being constructs differ in their motivational profiles, which suggests that FoMO may function as a natural intermediary linking these orientations to behavioral outcomes (Alt, 2015; Stead & Bibby, 2017). Hedonic well-being tends to predict lower FoMO and reduced problematic digital use, whereas orientations centered on meaning and exploration may heighten FoMO-driven engagement. These patterns provide a theoretically grounded rationale for the role of FoMO as a mediator in the present study.

2.5. Problematic Digital Use: A Mismatch between Human Psychology and Modern Environments

Problematic digital use refers to maladaptive, compulsive, or excessive engagement with digital technologies that interferes with social, occupational, or psychological functioning (Elhai et al., 2017; Montag et al., 2021). In this study, we operationalize problematic digital use across two complementary domains: platform-based problematic social media use and device-based problematic smartphone use. This dual operationalization captures maladaptive engagement at both the application and device levels. Digital technologies and platforms can intensify psychological vulnerabilities through features that stimulate social comparison, feedback-seeking, and real-time monitoring. For example, persistent notifications, algorithmically curated content, and visible social metrics increase user visibility and perceived social evaluation (Shakya & Christakis, 2017; Valkenburg et al., 2022).

These affordances can overstimulate ancestral social monitoring systems and create persistent cues that amplify FoMO-related motivations (Beyens et al., 2024; Ellison et al., 2020). As a result, individuals may develop habitual or dependency-like engagement patterns that involve repeated checking, difficulty disengaging,

and heightened emotional reactivity when disconnected (Peterka-Bonetta et al., 2019; Wolniewicz et al., 2018). Understanding how FoMO contributes to these patterns requires clarifying not only its mediating role but also the conditions under which individuals can regulate or resist its influence.

2.6. Self-Control as a Regulatory Buffer

Self-control refers to the capacity to regulate impulses, manage affective responses, delay gratification, and align behavior with long-term goals (Tangney et al., 2004). Evolutionarily, self-control supports cooperation, future planning, and goal-oriented behavior that enhance individual and group success (Baumeister et al., 2007). In digital contexts, higher self-control is consistently associated with lower levels of compulsive checking and excessive device use, as well as greater emotional regulation (Servidio, 2021; Tangney et al., 2004).

From a self-regulation perspective, self-control may shape the extent to which FoMO-related concerns are associated with maladaptive digital engagement (Baumeister & Heatherton, 1996; Hofmann et al., 2012). Theoretically, individuals with higher self-control may be better able to regulate FoMO-related impulses and resist compulsive engagement with digital platforms. In contrast, individuals with lower self-control may be more vulnerable to problematic digital behaviors in response to FoMO-related concerns (Elhai et al., 2020). Clarifying the role of self-control is therefore important for understanding when FoMO is associated with problematic digital engagement and when individuals are able to regulate or resist its influence.

The literature suggests that well-being orientations shape individuals' sensitivity to social and experiential opportunities, that FoMO is often conceptualized as a motivating mechanism linking these orientations to digital behavior, and that modern platforms amplify these dynamics. At the same time, self-control may determine whether FoMO's motivational pull results in maladaptive behavior. As shown in **Figure 1**, these insights form the basis of the present study's conceptual model.

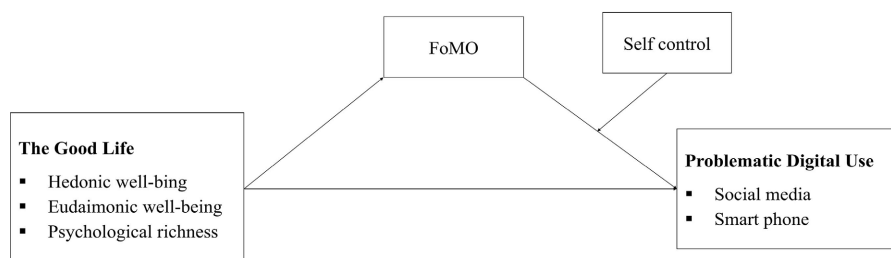


Figure 1. Conceptual model.

3. Hypotheses

3.1. Antecedents of FoMO

Subjective well-being represents a set of psychological resources that may shape

individuals' sensitivity to social information in both offline and digital environments. Hedonic well-being, characterized by emotional satisfaction and low negative affect, tends to reduce social threat sensitivity and facilitate feelings of security (Diener et al., 1999; Ryan & Deci, 2001). Individuals high in hedonic well-being may therefore be less prone to the relational need frustration and social comparison processes that contribute to FoMO. Eudaimonic well-being, in contrast, emphasizes meaning, personal growth, and self-realization (Ryff & Singer, 2008). Although it is often associated with psychological resilience, individuals high in eudaimonic well-being may also show heightened vigilance toward opportunities for connection, improvement, or contribution, potentially increasing awareness of what they might be missing. Finally, psychological richness, defined as a preference for novelty, variety, and perspective-changing experiences (Oishi & Westgate, 2022), may increase sensitivity to the stimulating social opportunities that are frequently encountered in digital environments.

Although well-being is often assumed to buffer FoMO by increasing security and satisfaction, certain forms of well-being may also heighten sensitivity to opportunity-rich environments. Hedonic well-being should be associated with reduced need frustration and lower vigilance to social threat, whereas eudaimonic well-being and psychological richness may increase attentiveness to meaningful or novel opportunities that digital platforms make salient. Accordingly, we advance directional and exploratory expectations.

Together, these well-being dimensions provide a theoretically grounded basis for predicting individual differences in FoMO. The following hypotheses are presented:

H1a: Hedonic well-being will be negatively associated with FoMO.

H1b: Eudaimonic well-being will be associated with FoMO.

H1c: Psychological richness will be associated with FoMO.

3.2. FoMO as a Mediator

FoMO is consistently linked to higher levels of problematic digital behavior and is often conceptualized as a motivational state that increases monitoring and checking of social and informational cues (Przybylski et al., 2013; Wolniewicz et al., 2020). Theoretical perspectives such as self-determination theory and compensatory internet use models suggest that when psychological needs are threatened, individuals may turn to digital media to restore feelings of belongingness, competence, or connection (Elhai et al., 2020). Accordingly, if well-being shapes susceptibility to FoMO, and FoMO is associated with greater problematic engagement, FoMO may function as a mechanism linking subjective well-being to problematic digital use. This process-oriented account positions FoMO as a mediator transmitting the effects of hedonic, eudaimonic, and psychologically rich orientations into behavioral outcomes. Formally:

H2a: FoMO will mediate the relationship between hedonic well-being and problematic digital use.

H2b: FoMO will mediate the relationship between eudaimonic well-being and problematic digital use.

H2c: FoMO will mediate the relationship between psychological richness and problematic digital use.

3.3. Self-Control as a Moderator

Self-control refers to the ability to regulate impulses, manage affective responses, and align behavior with long-term goals (Tangney et al., 2004). High self-control is consistently linked to lower susceptibility to compulsive or addictive behaviors, including problematic smartphone use and social media use (Servidio, 2021; Wolniewicz et al., 2020). In the context of FoMO, individuals with strong self-control may effectively inhibit their urges to repeatedly check digital platforms in response to perceived social opportunities. Although theoretical perspectives suggest that self-control may weaken the association between FoMO and problematic use, empirical evidence regarding this moderating role remains limited. Accordingly, this study examines whether self-control moderates the extent to which FoMO is associated with excessive or maladaptive digital engagement by testing the following hypothesis:

H3: Self-control will moderate the relationship between FoMO and problematic digital use such that the positive association is weaker among individuals with high self-control.

4. Method

4.1. Procedure and Design

This cross-sectional survey was conducted online following approval from a university institutional review board. Participants were recruited through Prolific (U.S. adults aged 18 and older). After providing informed consent, they completed a Qualtrics questionnaire assessing well-being orientations, FoMO, self-control, problematic social media and smartphone use, and demographic information. Participants received monetary compensation upon completion.

4.2. Participants

A total of 505 individuals participated in the study. Based on an a priori power analysis conducted using G*Power 3.1, a minimum of 464 participants was required to achieve .93 statistical power at an alpha level of .05 with an effect size of .06. Following data quality screening, 11 cases were excluded for failing an attention check, leaving a final analytic sample of 494 participants.

Participants had a mean age of 42 years (SD = 13.12); 51% identified as female, 47% as male, and 2% as non-binary. The sample was predominantly White (69%), with the remainder identifying as Black (16%), Asian (7%), Hispanic/Latino (6%), or other racial/ethnic backgrounds. Approximately 63% held at least a bachelor's degree. Among demographic variables, age was included as a covariate because prior research has consistently shown age-related differences in FoMO and prob-

lematic digital use. In the present sample, age was also significantly associated with problematic digital use.

4.3. Measures

All survey instruments used validated, widely applied scales (see supplementary material). Responses for all constructs were recorded on Likert-type scales ranging from 1 (“strongly disagree”) to 7 (“strongly agree”) unless otherwise specified.

Good Life Variables

Hedonic well-being, reflecting overall life satisfaction and happiness, was evaluated using the Satisfaction with Life Scale (SWLS) (Diener et al., 1985). Participants rated five statements such as “In most ways, my life is close to my ideal” ($M = 4.33$, $SD = 1.57$, $\alpha = .92$).

Eudaimonic well-being, capturing a sense of meaning and purpose, was measured with the Meaning in Life Questionnaire (MLQ) (Steger et al., 2006). Eudaimonic well-being was operationalized specifically as the presence of meaning in life using the MLQ-P, rather than broader eudaimonic functioning or meaning-seeking. Four items were included, for example, “I have discovered a satisfying life purpose” ($M = 4.99$, $SD = 1.59$, $\alpha = .93$).

Psychological richness (or experiential well-being) represents living a life filled with diverse and engaging experiences. It was measured using the Psychologically Rich Life Scale (PRLS) (Oishi et al., 2019), which included five items such as “I have had many novel experiences” ($M = 4.81$, $SD = 1.23$, $\alpha = .86$).

Fear of Missing Out (FoMO)

FoMO refers to feelings of anxiety or unease about missing out on social interactions or rewarding experiences. Fear of missing out was measured using an adapted version of the FoMO scale developed by Przybylski et al. (2013). Although the original scale consists of 10 items, a shortened six-item version was used in the present study to reduce participant burden and improve survey efficiency. The retained items were selected based on preliminary psychometric evaluation and demonstrated good internal consistency in the present sample. Example items included “I feel pressured to keep up with what’s happening on social media” ($M = 3.34$, $SD = 1.48$, $\alpha = .89$).

Self-Control

Self-control was conceptualized as the ability to regulate impulses and maintain focus on long-term goals. It was measured using the Brief Self-Control Scale (BSCS) (Tangney et al., 2004), which included nine items like “People would say that I have iron self-discipline” ($M = 4.42$, $SD = 1.20$, $\alpha = .87$).

Problematic Digital Use

Problematic social media use reflects compulsive and maladaptive patterns of social media engagement. Problematic social media use was assessed with the Bergen Social Media Addiction Scale (BSMAS) (Monacis et al., 2017), adapted from the Bergen Facebook Addiction Scale framework (Andreassen et al., 2012), using six items such as “I have tried to cut down on social media use but failed” ($M = 2.68$, $SD = 1.25$, $\alpha = .88$).

Problematic smartphone use refers to excessive reliance on mobile devices that disrupts or interferes with daily functioning. It was assessed with a 5-item scale (Elhai et al., 2017), including statements such as “I feel uncomfortable when I cannot check my phone” ($M = 3.90$, $SD = 1.51$, $\alpha = .86$).

4.4. Data Analysis Strategy

Structural equation modeling (SEM) was conducted in R (*lavaan*, MLR). A two-step procedure evaluated the measurement model via CFA and then tested the structural model. After the measurement model was validated, factor scores for the predictors, mediator, and moderator were extracted to estimate the mean-centered FoMO \times self-control interaction as an observed product term. The two outcome variables were retained as latent constructs to account for measurement error, and age was included as an observed covariate. Indirect effects were estimated using 5000 bias-corrected bootstrap resamples to obtain 95% confidence intervals.

5. Results

5.1. Confirmatory Factor Analysis

The seven-factor measurement model demonstrated acceptable fit, $\chi^2(705) = 1488.27$, $\chi^2/df = 2.11$, $p < .001$; CFI = .92; TLI = .92; RMSEA = .05; SRMR = .06. All standardized factor loadings were significant ($p < .001$) and exceeded .50. Composite reliability values were acceptable ($\geq .70$), and average variance extracted exceeded .50 for all constructs except self-control (AVE = .43), which nonetheless showed adequate reliability (CR = .80). These results provided evidence of acceptable convergent validity (Fornell & Larcker, 1981). Discriminant validity was supported using the Fornell-Larcker criterion, which showed that the square root of each construct’s AVE exceeded its correlations with all other constructs (see Table 1).

Table 1. Descriptive statistics, reliability, validity metrics, and interconstruct correlations.

	1	2	3	4	5	6	7	<i>M</i>	<i>SD</i>	α	CR	AVE
1) Hedonic well-being	.85							4.33	1.57	.92	.78	.72
2) Eudaimonic well-being	.82	.88						4.99	1.59	.93	.93	.77
3) Psychological richness	.50	.58	.75					4.81	1.23	.86	.70	.57
4) FoMO	-.08	-.06	-.02	.77				3.34	1.48	.89	.90	.59
5) Self-control	.48	.54	.28	-.32	.66			4.42	1.2	.87	.80	.43
6) Problematic social media use	-.06	-.04	.08	.74	-.32	.74		2.68	1.25	.88	.84	.55
7) Problematic smartphone use	-.11	-.12	.02	.69	-.51	.74	.75	3.90	1.51	.86	.80	.56

Note. Values on the diagonal are the square roots of AVE. Values below the diagonal are interconstruct correlations. FoMO = Fear of missing out; α = Cronbach’s alpha; CR = composite reliability; AVE = average variance extracted.

5.2. Direct Effects of Good Life Variables

After confirming the adequacy of the measurement model, the structural model

was estimated to examine the hypothesized direct and indirect relationships among the constructs. The structural model demonstrated acceptable fit: $\chi^2(100) = 273.80$, $\chi^2/df = 2.74$, $p < .001$; CFI = .95; TLI = .93; RMSEA = .06; SRMR = .05.

H1a-H1c examined the direct relationships between the three Good Life variables and FoMO. As shown in **Table 2** and **Figure 2**, eudaimonic well-being was positively associated with FoMO ($\beta = .23$, $p = .009$), indicating that individuals reporting greater meaning and purpose in life also tended to report higher FoMO levels. In contrast, hedonic well-being ($\beta = -.04$, $p = .607$) and psychological richness ($\beta = .02$, $p = .694$) were not significantly associated with FoMO. Thus, H1a was not supported. H1b was supported, as eudaimonic well-being was positively associated with FoMO. H1c (exploratory) was not supported.

Beyond FoMO, psychological richness was positively associated with both problematic social media use ($\beta = .14$, $p = .004$) and problematic smartphone use ($\beta = .10$, $p = .040$), suggesting that individuals who perceive their lives as more diverse and eventful may also report higher levels of problematic digital engagement. Neither hedonic well-being nor eudaimonic well-being was significantly related to either form of problematic digital use. Additionally, age was negatively associated with FoMO ($\beta = -.17$, $p < .001$) and problematic smartphone use ($\beta = -.07$, $p = .024$) and showed a marginally significant negative association with problematic social media use ($\beta = -.07$, $p = .057$). This finding suggests that younger participants were more likely to experience FoMO and engage in problematic digital use.

Table 2. Direct effects from the structural equation model (N = 494).

Predictor	FoMO			Problematic social media use			Problematic smartphone use		
	<i>b</i> (<i>S.E.</i>)	β	<i>p</i>	<i>b</i> (<i>S.E.</i>)	β	<i>p</i>	<i>b</i> (<i>S.E.</i>)	β	<i>p</i>
Age	-.01 (.00)	-.17	***	-.01 (.00)	-.07	.057	-.01 (.00)	-.07	.024*
Hedonic well-being	-.04 (.08)	-.04	.607	-.07 (.10)	-.05	.476	.14 (.10)	.08	.166
Eudaimonic well-being	.23 (.09)	.23	.009**	.05 (.12)	.03	.702	.10 (.13)	.06	.453
Psychological richness	.02 (.06)	.02	.694	.24 (.08)	.14	.004**	.18 (.09)	.10	.040*
FoMO	—	—	—	1.22 (.10)	.72	***	.98 (.09)	.56	***
Self-control	—	—	—	-.18 (.08)	-.10	.024*	-.76 (.09)	-.42	***
FoMO × Self-control	—	—	—	-.05 (.07)	-.03	.460	.04 (.05)	.02	.389

Note. FoMO = Fear of missing out; *b* = unstandardized coefficient; *S.E.* = standard error of the unstandardized coefficient; β = standardized coefficient. * $p < .05$, ** $p < .01$, *** $p < .001$.

5.3. Mediation Effects of Fear of Missing Out (FoMO)

H2a-H2c proposed that FoMO would mediate the relationships between the three good life variables and problematic digital use. The mediation effects were tested using bias-corrected bootstrap methods to generate 95% confidence intervals (CIs), with effects considered significant when the CIs did not include zero.

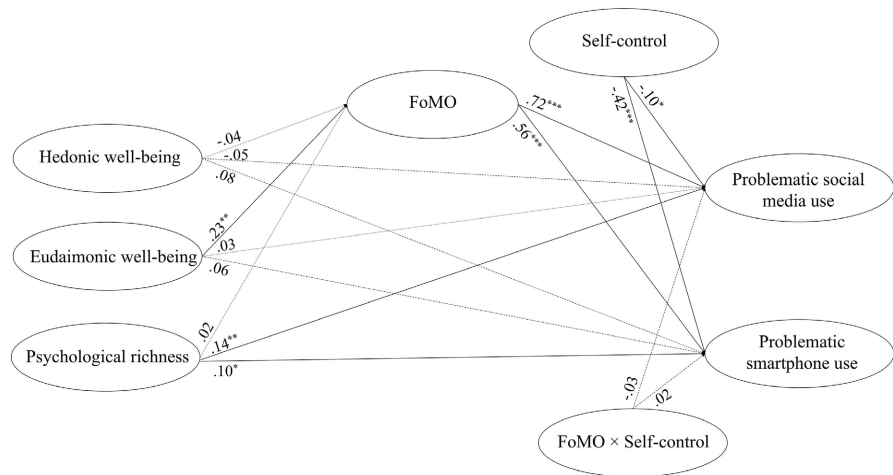


Figure 2. Structural Model with Statistically Significant Paths. *Note:* Standardized coefficients are displayed. Solid arrows indicate significant effects; dotted arrows indicate non-significant effects. $*p < .05$, $**p < .01$, $***p < .001$.

As presented in **Table 3**, eudaimonic well-being showed a significant indirect effect on both problematic social media use ($\beta = .16$, 95% CI [.03, .28]) and problematic smartphone use ($\beta = .13$, 95% CI [.03, .29]) through FoMO, as the 95% CIs did not include zero. These results indicated that individuals with greater meaning and purpose in life tended to experience higher FoMO ($\beta = .23$, $p = .015$), which was positively associated with problematic social media use ($\beta = .72$, $p < .001$) and smartphone use ($\beta = .56$, $p < .001$). Therefore, H2b was supported.

In contrast, the 95% CIs for hedonic well-being (problematic social media use: [-.13, .09]; problematic smartphone use: [-.13, .08]) and psychological richness (problematic social media use: [-.06, .10]; problematic smartphone use: [-.06, .09]) both included zero, indicating nonsignificant mediation effects of FoMO. Thus, H2a and H2c were not supported.

Table 3. Indirect (mediating) effects via FoMO from the structural equation model (N = 494).

	Parameter	<i>b</i> (<i>S.E.</i>)	β	<i>p</i>	95% CI
Hedonic well-being	→ FoMO → Problematic social media use	-.02 (.06)	-.02	.700	[-.13, .09]
Eudaimonic well-being	→ FoMO → Problematic social media use	.15 (.06)	.16	.015*	[.03, .28]
Psychological richness	→ FoMO → Problematic social media use	.01 (.04)	.01	.716	[-.06, .10]
Hedonic well-being	→ FoMO → Problematic smartphone use	-.02 (.06)	-.02	.703	[-.13, .08]
Eudaimonic well-being	→ FoMO → Problematic smartphone use	.15 (.06)	.13	.019*	[.03, .29]
Psychological richness	→ FoMO → Problematic smartphone use	.01 (.04)	.01	.716	[-.06, .09]

Note: Bias-corrected bootstrap 95% confidence intervals (CIs) are used. FoMO = Fear of missing out; *b* = unstandardized coefficient; *S.E.* = standard error of the unstandardized coefficient; β = standardized coefficient. $*p < .05$, $**p < .01$, $***p < .001$.

5.4. Moderation Effects of Self-Control

H3 examined whether self-control moderates the relationship between FoMO and problematic digital use. As shown in **Table 2** above, the interaction term between

FoMO and self-control was not significant for either problematic social media use ($\beta = -.03, p = .460$) or problematic smartphone use ($\beta = .02, p = .389$). These results indicate that the associations between FoMO and problematic digital behaviors did not differ across levels of self-control. Therefore, H3 was not supported.

However, the main effects revealed that FoMO was positively associated with both problematic social media use ($\beta = .72, p < .001$) and problematic smartphone use ($\beta = .56, p < .001$), while self-control was negatively associated with these outcomes (problematic social media use: $\beta = -.10, p = .024$; problematic smartphone use: $\beta = -.42, p < .001$). This pattern suggests that although self-control did not moderate the relationship, it independently served as a protective factor, reducing problematic digital engagement.

6. Discussion and Conclusion

The present study examined associations between three dimensions of well-being (hedonic well-being, eudaimonic well-being, and psychological richness), FoMO, and two complementary indicators of problematic digital use (problematic social media use and problematic smartphone use), and tested whether self-control moderates these links. The findings suggest that well-being is not uniformly protective in online contexts: eudaimonic well-being was positively associated with FoMO, whereas hedonic well-being and psychological richness were not significantly related to FoMO. In terms of direct associations with problematic digital use, psychological richness was positively associated with both problematic social media use and problematic smartphone use, whereas hedonic and eudaimonic well-being showed no significant direct associations with either outcome. FoMO was strongly associated with both problematic outcomes, and self-control was inversely associated with them, although self-control did not moderate FoMO-problematic use links. The discussion below integrates these findings and outlines implications for theory, research, and practice.

6.1. Eudaimonic Well-Being and FoMO

A notable contribution of this study is the positive association between eudaimonic well-being and FoMO. This finding clarifies the direction of the eudaimonia-FoMO link and aligns with theory suggesting that people who prioritize meaning and personal growth may remain vigilant to salient opportunities in opportunity-rich digital environments (Oishi & Westgate, 2022; Ryff & Singer, 2008). From an evolutionary perspective, such individuals may show heightened sensitivity to affiliation, contribution, or self-expansion opportunities that historically enhanced group value and long-term success (Buss, 2019; Kenrick et al., 2010). Platform-based environments make such opportunities highly visible, creating conditions where individuals with stronger eudaimonic orientations may experience FoMO due to heightened awareness of potentially missed experiences. Although the effect size was modest, the association was statistically reliable and

suggests that eudaimonic well-being may be associated with heightened vigilance in high-information digital contexts. This modest magnitude is consistent with FoMO being shaped by multiple psychological and contextual factors. This interpretation aligns with emerging evidence that eudaimonic motives can sometimes amplify cognitive engagement and increase social comparison tendencies (e.g., Kim et al., 2021), creating a motivational tension between striving and subjective satisfaction.

6.2. Psychological Richness and Digital Engagement

Psychological richness (experiential well-being) was positively associated with both problematic smartphone use and problematic social media use. This pattern indicates that individuals who reported more novel and perspective-shifting experiences also reported higher levels of maladaptive digital engagement, even after accounting for FoMO. One interpretation is that psychological richness reflects a stronger preference for experiential variety and cognitive stimulation, which may align with greater attraction to the novelty and informational breadth afforded by digital environments (Oishi & Westgate, 2022). Contemporary media environments provide abundant opportunities for exploration, novelty, and exposure to diverse perspectives, which may appeal to individuals higher in psychological richness. Such engagement may reflect adaptive exploratory tendencies in moderation, although persistent stimulation-seeking in digitally saturated environments may also contribute to maladaptive engagement patterns. The absence of an indirect effect through FoMO suggests that this pathway reflects experiential preference rather than social-comparison concern. Evolutionary theories of exploration highlight the adaptive benefits of information-seeking and environmental learning (Griskevicius & Kenrick, 2013), which may manifest in online contexts as higher engagement. Nevertheless, because this study used a cross-sectional design, this relationship should be interpreted cautiously.

6.3. FoMO as a Proximal Mechanism

Across all predictors, FoMO emerged as the strongest correlate of problematic social media and smartphone use, which aligns with extensive research identifying FoMO as a proximal motivational force that is linked to increased checking, engagement, and emotion regulation efforts through digital devices (Baker et al., 2016; Elhai et al., 2020; Przybylski et al., 2013). FoMO statistically mediated the relationship between eudaimonic well-being and problematic use, highlighting a pattern consistent with FoMO functioning as a mechanism linking broader motivational orientations with behavioral outcomes. This mediation pattern is consistent with the view that FoMO represents an evolutionarily calibrated social monitoring response, one that is intensified by modern technologies that increase social visibility and interpersonal comparison opportunities (Baumeister & Leary, 1995; Valkenburg et al., 2022). Hedonic well-being and psychological richness did not exhibit significant indirect effects through FoMO, which underscores the dis-

tinct motivational profiles of the three well-being pathways. These findings support the conceptual model that identifies FoMO as a central mechanism in contemporary digital behavior.

6.4. Self-Control as a General Protective Factor Rather than a Moderator

Self-control showed a strong negative association with problematic digital use, consistent with prior research linking higher self-control to lower levels of compulsive smartphone and social media behavior (Elhai et al., 2017; Servidio, 2021; Tangney et al., 2004). Despite theoretical expectations, the interaction between FoMO and self-control was not significant, which indicates that trait self-control may function as a general protective factor rather than a context-specific buffer against FoMO-driven impulses. From a theoretical standpoint, trait self-control reflects a broad dispositional resource that supports long-term goal alignment but may not be sufficiently sensitive to context-specific cues that activate FoMO (Baumeister et al., 2007). FoMO often arises in response to moment-to-moment social information, and state-level regulatory processes may be more relevant in such contexts. Future research examining daily fluctuations in self-control and situational triggers of FoMO would provide a clearer understanding of regulatory dynamics in digital environments.

6.5. Theoretical and Practical Implications

The findings of this study contribute to theory by demonstrating that well-being is not uniformly protective in digital contexts. Although it is associated with meaning and purpose, eudaimonic well-being was associated with greater cognitive engagement and greater awareness of missed opportunities, which may help explain higher FoMO in environments rich in socially relevant cues. Psychological richness may be associated with digital behavior through pathways that do not depend on FoMO, highlighting the potential motivational role of curiosity and experiential variety. FoMO remains a powerful and consistent correlate of problematic digital behavior, reinforcing its centrality in theoretical models of digital well-being (Elhai et al., 2020; Przybylski et al., 2013). The absence of a moderation effect for self-control suggests that researchers should differentiate trait self-control from situational self-regulation and consider both in future models.

In terms of practice, interventions may benefit from tailoring strategies to individuals' motivational profiles. Growth-oriented individuals may benefit from acceptance-based or mindfulness interventions that reduce over-monitoring of meaningful opportunities. Those high in psychological richness may respond to interventions that help structure exploratory digital use, such as intentional scheduling or content curation. Because self-control exerts a strong direct effect, programs that strengthen regulatory skills through implementation intentions, attentional training, or goal-setting may help reduce problematic use across diverse populations. These implications are consistent with the broader theoretical view

that different well-being pathways have distinct motivational signatures, which may require tailored approaches to digital well-being interventions.

6.6. Limitations and Future Directions

Several limitations should be acknowledged. First, this study relied on trait-level assessments of well-being, FoMO, and self-control. These constructs naturally fluctuate over time and may operate dynamically in response to situational cues and momentary digital feedback. The use of exclusively trait-level measures may not fully capture the situational regulatory processes that shape FoMO-driven digital behavior. Future research would benefit from incorporating state-level assessments or ecological momentary designs to capture how FoMO and self-control fluctuate during real-world digital interactions.

Second, eudaimonic well-being was operationalized using the presence of meaning, which reflects a sense of purpose but does not fully capture meaning-seeking or growth-oriented striving. These motivational aspects of eudaimonia may be more strongly connected to vigilance, opportunity monitoring, and heightened FoMO in digitally saturated contexts. Future researchers should consider combining measures of meaning presence with assessments of meaning pursuit or eudaimonic striving to more fully account for the motivational dimensions that may influence digital behavior.

Beyond these considerations, future research would also benefit from longitudinal or experimental approaches to clarify the temporal pathways among well-being, FoMO, self-regulation, and digital engagement. Expanding the measurement of digital behavior to include behavioral logs or passive sensing tools would also provide more precise and ecologically valid indicators of technology use. Together, these directions can help refine theoretical models and improve the development of interventions aimed at fostering healthier digital habits.

The findings of this study suggest that different pathways to well-being may carry distinct implications for FoMO and problematic digital engagement. In this sample, eudaimonic well-being was positively associated with FoMO, which is consistent with the possibility that meaning-oriented individuals may be especially attentive to salient opportunities in highly connected environments. Psychological richness was directly associated with higher levels of problematic smartphone use and social media use independent of FoMO, highlighting a potential pathway tied to experiential variety and cognitive stimulation rather than social-comparison concern. FoMO showed strong associations with both forms of problematic digital use, and self-control was inversely associated with these outcomes, suggesting that regulatory capacity may serve as a general protective resource even when it does not operate as a specific buffer against FoMO-related impulses. These patterns underscore how psychological flourishing and digital vulnerability can co-occur and point to the value of considering motivational diversity in future theory, research, and interventions aimed at healthier digital engagement.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Supplemental Material

Measurement Items and Confirmatory Factor Loadings for Key Variables

Variable	Item	β
Hedonic well-being (A happy life)	1) In most ways, my life is close to my ideal.	.94
	2) The conditions of my life are excellent.	.87
	3) I am satisfied with my life.	.94
	4) So far, I have gotten the important things I want in life.	.78
	5) If I could live my life over, I would change almost nothing.	.69
Eudaimonic well-being (A meaningful life)	1) My life has a clear sense of purpose.	.94
	2) I understand my life's meaning.	.92
	3) I have discovered a satisfying life purpose.	.93
	4) My life has no meaning or purpose. (<i>R</i>)	.70
Psychological richness	1) My life is full of interesting experiences.	.68
	2) I have had many novel experiences.	.71
	3) I engage in activities that challenge my way of thinking.	.66
	4) I often do things that are out of the ordinary for me.	.67
	5) My life consists of a variety of different experiences.	.84
Fear of missing out	1) I fear others have rewarding experiences that I am missing.	.67
	2) I get anxious when I don't know what my friends are doing.	.81
	3) I feel pressured to keep up with what's happening on social media.	.78
	4) I get worried when I find out my friends are having fun without me.	.88
	5) It bothers me when I miss an opportunity to meet up with friends.	.69
	6) I sometimes wonder if I spend too much time keeping up with what is going on.	.72
Self-control	1) I am good at resisting temptation.	.66
	2) I have a hard time breaking bad habits. (<i>R</i>)	.73
	3) I am lazy. (<i>R</i>)	.58
	4) I say inappropriate things. (<i>R</i>)	.52
	5) I do certain things that are bad for me, if they are fun. (<i>R</i>)	.66
	6) I refuse things that are bad for me.	.61
	7) I wish I had more self-discipline. (<i>R</i>)	.64
	8) People would say that I have iron self-discipline.	.69
	9) Pleasure and fun sometimes keep me from getting work done. (<i>R</i>)	.55
Problematic social media use	1) I spend a lot of time thinking about social media or planning how to use it.	.63
	2) I feel an urge to use social media more and more.	.79
	3) I use social media to forget about personal problems.	.70
	4) I have tried to cut down on social media use but failed.	.71
	5) I become restless or upset when I cannot access social media.	.82
	6) I use social media so much that it has negatively affected my work or social interactions.	.71

Continued

	1) I feel anxious when I do not have my smartphone.	.62
	2) I spend more time on my smartphone than I intend to.	.77
Problematic smartphone use	3) I use my smartphone even when it interferes with work or sleep.	.75
	4) I have tried to reduce smartphone use but failed.	.80
	5) I feel uncomfortable when I cannot check my phone.	.68

Note. All standardized factor loadings (β) are significant at $p < .001$. The “*R*” indicates a reverse-coded item.